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# The Journal OF THE EAST AFRICA AND UGANDA NATURAL HISTORY SOCIETY.

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September, 1937.

Special Supplement No. 5.

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KENYA COLONY.

by

H. K. MUNRO, B.Sc., F.R.E.S.,

*Entomologist, Division of Plant Industry,  
Union Department of Agriculture.*

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## SOME NEW TRYPETIDAE (DIPTERA) FROM KENYA.

By H. K. MUNRO., B.Sc., F.R.E.S.,

*Entomologist, Division of Plant Industry,  
Union Department of Agriculture.*

Through the kindness of Dr. V. G. L. van Someren, I have been able to examine a series of reared fruit-flies in the collections of the Coryndon Memorial Museum. The material adds much to our knowledge of the host-plants of African Trypetidae, and is of interest not only on account of the new species discovered, but also as several South African species, such as *Pardalaspis marriotti*, Mro., *P. lobata*, Mro., *P. simi*, Mro., and others are included.

Dr. van Someren will publish general biological notes on the various species at a later date, while the new species are described here. The types will be deposited in the collections of the British Museum.

*Dacus (Afrodacus) nigrivenatus*, n.sp.

Allied to *Afrodacus biguttulus*,<sup>(1)</sup> Bez., from South Africa, but differs in various points: the face is unspotted, the frons wider, the scutellum uniformly coloured and no yellow hypopleural spot; the upper cross-vein is slightly infuscated.

Holotype male and allotype female, one male and two female paratypes, Nairobi, Kenya, 1936, N. Krauss. Reared from larvae in fruits of *Duranta repens*, Linn.

An entirely sub-translucent, orange-rufous species, with only the humeri and a broad mesopleural stripe yellow and the hind tibiae slightly blackened. Length: male, 5.5 mm., wing, 4.25 mm.; female, 6.0 mm., wing, 5.0 mm. *Head* normal, antennae a little longer than face, bristles black, only the four verticals and a single pair of inferior orbitals, the lower, rarely one or a very weak upper pair, superior orbitals and ocellars absent, genal weak. *Thorax* with pale pubescence and a pair of weak, pollinose, sub-median stripes. Bristles black, only outer cervicals, no anterior supra-alars but a pair of pre-scutellars. *Scutellum* rather flattened convex above, sides and hind margin fairly straight, a pair of apical bristles. *Legs* normal. *Wing* normal, veins black, stigma, marginal cell, except a hyaline spot below end of first vein, a narrow costal stripe widened a little over end of third vein to middle of first posterior cell, a slight infuscation over upper cross-vein and anal stripe blackish. Anterior cross-vein below end of first vein and a little beyond middle of discal cell, lower cross-vein gently S-shaped. *Abdomen* with pale pubescence and third segment of male

<sup>(1)</sup> Bezzi. *Bol. Lab. Zool. Portici*, XV, 294, 1922, *Chaetodacus*, and *Ann. S.A. Mus*, XIX, 469, 1924, *Afrodacus*.

ciliate; segments apparently free. Male genitalia black. Base of ovipositor short, 1.0 mm., about equal to length of last two segments of pre-abdomen; flattened in specimens.

*Dacus (Psilodacus) triater*, n.sp.

A small black species closely allied to *maynei*, Bez.<sup>(2)</sup> from which and others of the group it may be distinguished as the triangular disc of the scutellum is black.

Holotype male, allotype female, four male and three female paratypes, Naivasha, Kenya, June, 1936, H. J. A. Turner.

A black, elongate species with rather narrow wings, yellow head and legs. Length, both sexes, 5.5 mm., of wing, 5.0 mm. Head normal, somewhat spherical, only a little higher than long; occiput black above, below, well-developed and yellow; frons ferruginous on hind half, in front yellow with slight pale pubescence, ocellar dot black, two inferior and one superior orbital, no ocellars; lunule short; antennae one-third length of face, third joint largely blackish, arista bare; face with broad keel, epistome not prominent, cheeks narrow, genae about as wide as third antennal joint; proboscis and palpi yellow. Thorax punctate and black on dorsum, with pale, short pubescence, a pair of pale, dusted sub-median stripes, and also lightly dusted on sides. Humeri, a broad mesopleural stripe, single hypopleural spot and sides of scutellum yellow. Pleura ferruginous in front, otherwise black, with pale pubescence, long on sternites. Bristles black, only outer cervicals, no anterior supra-alar, and a pair of apical scutellars. Scutellum flat on disc, sides rather straight, the incurved apex narrow, about one-third length. Legs and halteres yellow. Wing three times long as wide, hyaline, with only stigma black, an elongate, costal spot on the end of third vein, and the upper cross-vein narrowly, slightly more in female, black-margined. Abdomen like dorsum of thorax, slightly reddish at end, pale whitish pubescence, almost parallel-sided, width about two-thirds length. Sternites small, brownish, with long pubescence in male, short in female. Male genitalia blackish. Base of ovipositor ferruginous, half as long and rather large in comparison with pre-abdomen, it is broad in proportion to its length, the basal half wide, and the whole, together with the large, semi-circular, sixth sternite, having the form of a short, wide, but flat, flask.

*Pardalaspis contramedia*, n.sp.

A curious species that seems to require the formation of a new genus or of a sub-genus. In general body colouration, especially of the dorsum of the thorax, and in wing-pattern, it resembles species of *Pterandrus*, such as *Pt. rosa*. The legs are simple, and, as in species

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(2) See Collart, *Bull. Mus. r. d'Hist. nat. de Belgique*, XI, 6, 1935.



of *Pardalaspis*, the middle legs of the male do not present any feathering. The most marked feature is the shape of the head; while it is short, as is more characteristic of some species of *Trirhithrum*, it differs in having the frons rather strongly projecting before the eyes, the fronto-facial angle being only a little more than a right angle, and the lower occiput is more reduced than is usual in the last-named genus. It may be noted, however, that the shape of the head is somewhat variable among the species placed in the genera noted. In some species of *Trirhithrum* it is shortened, but in others it is more rounded or oval in profile. The typical shape in *Pterandrus* and in *Pardalaspis* may be said to be more or less squarish in profile; in some species of *Pardalaspis*, such as *P. lunata*, Mro., the head is short, but the frons is not prominent, and the lower occiput is more strongly developed than is usual in *Pardalaspis*. No other species of these genera has the arista so nearly bare as it is in this new species, but again, there is a gradation—in *Pardalaspis punctata*, Wied., it is short pubescent, while in many it is plumose. Other characters also need more comparison and it is intended to do this in later studies of this group of the *Trypetidae*.

Holotype male, allotype female, 22 male and 17 female paratypes, Nairobi, Kenya, December, 1936, V. G. L. van Someren. Larvae in fruits of *Warburgia ugandensis*, Sprague.

Length: male, 5.5 mm., of wing, 5.2 mm.; female, 6.0 mm., of wing, 5.5 mm. Small specimens have a wing-length of 4.0 mm. Head, proportions of length, height and width, about 4, 5 and 6. The eye is moderately large and about three-quarters long as high. Occiput flat and not very prominent below, yellow barely darkened above, the clothing below yellow, the bristles and orbital setulae black except the post-vertical bristles yellow. Frons flat, projecting before eyes, one-third width of head, one and three-quarters long as wide, widened anteriorly; dark yellow, brownish anteriorly in male, ocellar dot black, slight black pubescence medially in front, bristles black, two superior and two inferior orbitals, ocellars short, only a little longer than half the inferior orbitals. Lunule inconspicuous. Antennae large, brownish yellow, about as long as face, second joint not strongly spinulose above, third joint rather narrowed on outer half (not so marked in female), about two and a half times long as greatest width. Arista practically bare, only slight, scattered, microscopic pubescence on yellowish, basal third, flagellum black. Face yellow, with wide, shallow grooves, epistome moderately prominent, cheeks narrow, genae about as wide as third antennal joint, yellow, bristle black, as also a few setulae above it and those on sides of epistome. Proboscis and palpi yellow, latter with black setulae.

Thorax: dorsum brown as in species of *Pterandrus*, and with restricted black spots—a narrow, median black line, a dorso-central interrupted line consisting of a spot before, one on suture and one on dorso-central bristle, the last with a streak behind to join large pre-scutellar

spot. Laterally an indistinct spot before suture, above the wing-root a pair, one behind the other and separated from a wider streak above and which is also extended behind to join the pre-scutellar spot; pubescence black on spots, otherwise pale. Humeri yellowish, unspotted. Pleura and sterna light brownish-yellow with rather short, pale pubescence. Bristles normal, black, except the yellow cervicals, but the outer may be black, one mesopleural, dorso-centrals on line of anterior supra-alars. Scutellum semi-circular, not strongly swollen; basal third yellow with a small blackish spot on each side, the shining black hind two-thirds is incompletely divided from in front into three by two yellow streaks that only reach the apical bristles; in the female there is a moderate yellow spot on the underside. The upper part of the post-scutellum is shining black and divided by a median yellow spot, the pale brownish hind part is lightly silvery dusted. Squamae moderate with thickened, blackish rims. Halteres yellow. Legs simple; coxal bristles and clothing black, except hairs on upper part of front femora mostly yellow. Wing normal; rather narrowed outwardly, the stigma about three times as long as its greatest width; upper cross-vein just before inner third of discal cell and about opposite middle of stigma; basal streaks present and usual pattern, the marginal band broadly united to the basal, the cubital free and no medial, or only a bare trace.

*Abdomen*, ♂, brownish yellow, the second, third and fourth segments with their hind halves more or less broadly silvery dusted, the dust reaching the anterior edge in the middle, the anterior halves of the segments more brownish, with a pair of sub-median and a pair of sub-lateral brown spots, most marked on the fourth segment; pubescence black, but pale on first segment; strong marginal bristles present. Venter yellow. Genitalia yellow, the anal ring blackish. ♀, dorsum more generally silvery dusted all over, more strongly on hind margins of segments and on median line, the brown spots are very slight or absent on third segment, usually strong and of moderate size on fourth, but the outer ones may be absent, slight or absent on fifth; sixth segment very short. Base of ovipositor long, about as long as pre-abdomen, yellow, flattened in specimens, pubescence on anterior third pale, black behind.

*Pardalaspis simi*, Mro.

Munro, Union Dept. Agr., Ent. Memoir 8, p. 37, Pl. III, f. 10, 1932.

Three males and two females reared from larvae in fruits of *Acokanthera longiflora*, Staff (Nairobi, 1936, N. Krauss) and a male and three females from *A. schimperi*, Schweinf. (Nairobi, April, 1937, van Someren) are placed in this species. After comparison with the types there does not seem to be any difference except the greater size of the Kenya specimens; in these the length of the male is 6.2 mm.,

of the female 6.5 mm., and of the wing in both, 6.5 mm., while in the types the male is 5.0 mm., the female, 6.0 mm., the wing in both, 5.8 mm. However, two females from Cedara (Jan., 1933, Entomologist, bait trap) and a female from Kokstad (13/3/33, H. Eagle, bait trap) are larger, having a wing-length of 6.0 mm. Further, in the South African specimens there is nearly always a small, but strong, oval black spot on the middle of the dorsum of the thorax, while in the Kenya specimens this is usually weak or absent, especially in the females.

It may be added here that although *P. simi* seems to resemble *P. stictica*, Bez., the likeness is probably quite superficial, but I have not yet seen specimens that I can consider to be *stictica*. However, the latter is a small species with plumose arista, like *P. giffardi* and others, while *simi* is a large, yellow species with pubescent arista.

*Pardalaspis turneri*, n.sp.

A small species allied to *Pardalaspis aliena*, Bez.<sup>(3)</sup>. It differs in having the antennae blackish-brown, not yellow, as also the upper two-thirds of the face; on either side of the broad, median, yellowish stripe, the dorsum of the thorax is continuously dark brown, and the base of the wing is distinctly blackish.

Holotype male, allotype female, 11 male and 10 female paratypes, Naivasha, Kenya, June, 1936, H. J. A. Turner, and one male paratype, Ngong, Kenya, June, 1936, V. G. L. van Someren. Those from Naivasha were reared from larvae in fruits of *Solanum nodiflorum*, Jacq.

Length: male 4.0 mm., female 4.5 mm., of wing in both 4.5 mm. (in a small male, 3.5 mm.). *Head*: proportions of length, height and width, 3, 4, and 5; the upper part of the frons, the vertex and upper occiput yellow, the last blackish, head otherwise pale whitish yellow, with black ocellar dot and brown upper two-thirds of face. *Frons* flat, parallel-sided, a little longer than wide, and two-fifths width of head, a little pale pubescence in middle; bristles, two superior and two inferior orbitals, ocellars strong, the rest of the clothing of the head in male yellowish, but in female genal bristle and a short row of setulae on sides of epistome black. The vertical plates are broad and shining, reaching the middle of frons. *Lunule* inconspicuous. *Antennae* brown, the third joint strongly blackish; arista short plumose. Palpi and proboscis pale yellow. Cheeks narrow, genae wide, about one-third height of the rather small, rounded-oval eye. *Thorax*: dorsum with pale pubescence, a little black in front; a broad, median chestnut stripe as wide as distance apart of pre-scutellar bristles, it is very slightly (less than in *aliena*) dusted anteriorly except a slight median streak, and behind has a more or less developed median, ivory yellow streak broadly widened behind; the sides of the

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(3) Bezzi. *Bull. Ent. Res.*, X, 231, 1920.

dorsum are broadly and more or less uniformly dark, shining, brownish-black, there is an ivory yellow notopleural spot and, above the wings, behind the suture, a streak, ivory yellow in front, chestnut behind where there is a tooth to the outer posterior supra-alar bristle; humeri pale yellow. Pleura whitish-yellow, with long, pale hairs, sterna rather more yellowish and with long, dense, pale hairs below. Bristles normal, black, except yellow middle scapulars and pale yellow sternopleural; one mesopleural, dorso-centrals a little behind anterior supra-alar. *Scutellum* not strongly globose, only moderately convex, with four bristles, the apicals rather close together, slight pubescence, the disc mostly ivory yellow, with the usual three quadrate spots marginally, the apical one somewhat small, they are edged with yellowish, and tend to coalesce in front; upper part of post-scutellum entirely black, the lower reddish-yellow with whitish dust. *Legs* simple, with yellow clothing, a black spur at end of middle tibiae, in female the stronger bristle-hairs are black. *Wing* almost as in *aliena*, both the cubital and medial bands are united to the separated marginal; the bands are blacker than in *aliena*, and the base of the wing definitely black; the upper cross-vein is a little before the middle of the discal cell. *Halteres* yellow. *Abdomen* normal: first two segments yellowish, otherwise blackish-brown, second segment with slight and fourth with stronger silvery margin on hind edge, in female a slight silvery spot on hind edge of third segment; pubescence rather long, mostly yellow, black on sides of second and between second and third segments, otherwise only a little black on hind margins of segments, marginal bristles black; in female rather more black pubescence and stronger bristles on edges of segments. *Venter* and male genitalia yellowish. In female sixth segment very short. Base of ovipositor yellow, with black pubescence, flattened in specimens, slightly shorter than fourth and fifth segments together.

*Pterandrus curvatus*, n.sp.

A blackish species, probably allied to *Pardalaspis pedestris*, Bez., and to *P. lobata*, Mro., but differing as the middle legs of the male are feathered. In the absence of specimens, it is not possible to say just how closely it may be allied to *Pterandrus pinnatifemur*, End.,<sup>(4)</sup> in which, as in this species, only the middle femora are feathered. Enderlein's description is very brief, but as he compares his species with *Pterandrus anonae*, Grah., it may be assumed that the feathering on the middle femora is as in Graham's species, that is, on the lower edge, but the latter has also the middle tibiae feathered. In *curvatus* the feathering is on the upper edge at the apex of femora. *Pt. curvatus* is probably more nearly allied to *Pt. podocarpi*, Bez.<sup>(5)</sup> The two are very similar, but in *podocarpi* only the middle tibiae are feathered. The

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(4) Enderlein. *Zool. Jahrb.*, 43, 353, 1920.

(5) Bezzi. *Ann. S.A. Mus.*, XIX, 476, f. 22, 1924.

notopleural band is much narrower, and while the hairs on it are also yellowish, they do not extend so markedly on to the pteropleural region as in *podocarpi*. In *curvatus* the black scutellum is not divided into "quadrate" areas. Various differences in the colouration of bristles and hairs between the sexes in *curvatus* may be noted.

Holotype male, allotype female, one male and two female paratypes, Nairobi, Kenya, December, 1936, three male and two female paratypes, Jan., 1937, van Someren; five male and three female paratypes, Nairobi, June, 1936, van Someren. (All reared from larvae in fruits of *Strychnos usambarensis*, Gilg.; the June specimens are undersized and rather teneral.) One male paratype from *Acokanthera schimperi*, Schweinf., Karura, June, 1936, van Someren, appears to be identical with the specimens from *Strychnos*.

Head yellow, proportions of length, height and width, 7, 10, and 13; *occiput* black above, more or less extensively yellow at vertex, pale yellow below with yellow hairs, moderately swollen. *Eye*, relatively large, about twice as long as wide. *Frons* parallel-sided, about one and a half times long as wide, flat, whitish, yellow at vertex, ocellar dot black, an irregular brown mark across middle, much stronger in female, and at antennae, the latter mostly as lateral spots in male, but wider and crossing top of face in female; slight black pubescence; bristles black and normal, two superior orbitals, two lower, ocellars strong. *Lunule* inconspicuous. *Antennae* about three-fourths length of face, straw-yellow in male, brown in female; arista rather short plumose, stronger in female. *Face* pale yellow with shallow grooves, and, as noted, a brown bar across top in female; cheeks and genae pale yellow, the latter with a large brown spot below the eye in female, clothing yellow but a rather weak row of setulae on sides of epistome in male, stronger in female; proboscis short, brown, palpi yellow in male, brown in female. *Thorax* dark; *dorsum* shining brownish-black, a pair of ivory yellow, rather small spots before scutellum; pubescence white, black on sides and above humeri, longer on middle line behind; silvery dust forming a pair of wide sub-median stripes from front edge, uniting behind on line of dorso-central bristles and then narrowing to a point on hind edge, and a pair of sub-lateral inwardly curved stripes, bent inward before suture to join the sub-median stripes. *Pleura* light blackish-brown, with upper pale stripe, light brown on humeri, which have a large brownish spot, and propleura and on base of wing, yellow on upper half of mesopleura. The pubescence on the yellow bar is yellowish, on the propleura a row of whitish bristle-hairs, otherwise pubescence pale and inconspicuous, with some stronger and black below the mesopleural bristle, some forming a definite perpendicular row; at the bottom of the mesosternites long and whitish, with a few black hairs; in the female there is more black on the lower mesopleura, and the long hairs on the mesosterna all black. *Scutellum* swollen, almost

spherical, shining black with sparse pale pubescence; across the middle of the base is a yellow, forwardly curved bar, with a pair of disconnected yellow spots at the sides, but the middle bar may be absent, or only a trace, or well developed and connected with the lateral spots. There is a single, shining whitish hypopleural spot with a slight brownish streak across its middle; the post-scutellum is shining black, the lower portion covered with dense, silvery dust, below the scutellum being a lenticular yellow cross-bar. Bristles black: dorso-centrals a little behind line of anterior supra-alars, the middle cervicals strong, a single mesopleural, and four scutellars. *Wing*, male, length 4.5 mm. by 1.9 mm. at greatest width, in female 4.75 mm. by 1.9 mm. Pattern with usual basal spots and bands, these being all black with only a trace of yellow in upper part of basal band in male; marginal broadly united to basal, cubital free and no medial; the third vein setulose to outer third of first posterior cell; costal bristle weak; lower cross-vein, before middle of discal cell, is three and a half times its length from the lower; discal cell with upper and lower sides parallel, and the outer, lower angle acute; the alula and third anal cell large and semi-circular, rather less in female. *Legs*: male, all coxae brown; front femora swollen, yellow, blackened above, with dense yellow and some black hairs, on inner ventral edge a row of long, shining yellow, close-set hairs for whole length, on the outer edge a row of less closely-set, black bristle-hairs; middle femora yellowish on basal third, blackish outwardly, the anterior surface densely covered with coarse setulae, below, on the distal two-thirds and on the posterior side of the tibial groove, a row of black bristles, above, on distal third, a short row of feathering, its length about the diameter of the femur, shortening rapidly to very short at apex; hind femora mainly blackened, yellowish at base, clothed with black setulae, apically below with a short row of short bristles on each side of tibial groove, those on anterior side being almost feather-like, apically above an irregular group of outwardly bent bristle-hairs; all tibiae and tarsi yellow, hind tibiae with a row of setulae on middle half of outer surface, mid-tibiae with single apical spur. In female, coxae brownish, femora brown, yellowish basally, clothing black, tibiae and tarsi yellow, front femora with row of strong bristles below, hind with irregular series of apical bristles above as in male; hind tibiae with row of moderate setulae on upper outer surface, middle with weaker row. Halteres brown. Squamae, upper large, rounded, lower less rounded, both semi-transparent with thickened brownish rim set with fine hairs. *Abdomen* normal, brown, first and fifth segments blackish-brown, third almost quite black, second with moderate silvery dusted bar, yellowish anteriorly, fourth also with silvery bar, brown anteriorly; pubescence black, whitish on silvery areas. In female generally browner, silvery bars narrower. Base of opivisitor short, somewhat longer than segments four and five together, black on hind half, reddish-yellow anteriorly, pubescence

black, sides of fourth and fifth segments and hind edge of barely visible sixth with black bristles. Male genitalia brown. Venter brown.

*Pterandrus gravinotatus*, n.sp.

A species in which only the middle tibiae of the male are feathered; it differs from other recorded species of *Pterandrus* in the heavily marked wing-pattern, especially the very strong medial band united to the marginal. The species, however, seems to be very like *Pardalaspis cyanescens*, Bez.<sup>(6)</sup> described on a female from Madagascar. The female of this new species differs in having the third antennal joint brown, not yellow, a pair of yellow pre-scutellar spots on the dorsum of the thorax in both sexes, and the brown abdomen with the second and fourth, also fifth in female, segments almost entirely and very strongly silvery dusted. From *podocarpi*, Bez., it differs, apart from the wing-pattern, as the black of the scutellum is not divided into quadrate areas.

Holotype male, allotype female, six male and twelve female paratypes, Nairobi, Kenya, December, 1936—January, 1937, V. G. L. van Someren. Larvae in fruits of *Podocarpus gracilior*, Pilger.

Length: male, 4.0, wing, 4.5 mm.; female, 5.25 mm., wing 5.0. *Head*, proportions of length, height and width, 7, 11, and 12, relatively slightly larger in male; *occiput*, flat, not very prominent below, yellow, blackish above on sides; *frons*, in male, yellow, darker above, dark brown ocellar dot, slight yellow pubescence in front; in female brownish, yellow around lower inferior orbital bristle, ocellar dot blackish, and brown pubescence, especially on sides, in both sexes, parallel-sided, width about two-thirds length, somewhat swollen before eyes; *lunule* inconspicuous; *antennae* about as long as face, yellow in male, brown in female, arista short pubescent; *face* flat, yellow, in male a brown spot below eye; in female, cheeks also brownish; palpi and proboscis yellow.

*Thorax*: dorsum shining black, with slightly dusted pattern on disc where pubescence is pale, otherwise black that is, on sides, in front and on undusted median streak and pair of dorso-central spots on suture, and a pair of ivory yellow, rather small, pre-scutellar spots; bristles black, one mesopleural, inner and outer cervicals, dorso-centrals about on line of anterior supra-alars. Humeri yellow with large blackish spot. Pleura, upper two-thirds white with pale pubescence, lower portions and sterna brown with black pubescence, except where pale pubescence extends from above on to pteropleura; a double, white, hypopleural spot. *Scutellum* shining black with black pubescence, an ivory yellow

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(6) Bezzi. *Bull. Mus. Hist. nat. Paris*, XXIX, 529, 1923.

bar across the base, the middle, curved portion with its arm reaching about half length of scutellum to apical bristles; four scutellar bristles. Post-scutellum shining black, the hind portion thickly silvery dusted. *Legs*: clothing mostly black, front femora black, rather swollen with dense black, bristle hairs, tibiae and tarsi yellow; middle legs in male yellow, but outer two-thirds of middle tibiae black, and on their outer half, feathering on both sides; in female, middle legs simple, femora and tibiae brownish, tarsi yellow; hind legs brown, tarsi yellow, femora with short row of setulae below at end, tibiae with strong row of setulae on upper side. *Wing* normal, upper cross-vein slightly before middle of discal cell; pattern black, rather weaker in male, anal band moderate, rather few hyaline streaks and dark spots, marginal band with usual hyaline costal edge and black spots, narrowly or barely joined to basal in sub-marginal cell, end of stigma hyaline, cubital band free, medial strongly united to marginal and reaching wing margin. Squamae rather large. Halteres brown. *Abdomen* brown with black pubescence; second segment, whole of fourth except narrow anterior edge, and hind half of fifth thickly silvery dusted (in male, fifth only lightly dusted), the brown fore edge of fourth segment may more or less form spots. Male genitalia and venter brownish. Base of ovipositor short about as long as fourth and fifth segments together, reddish, outer third brown, black pubescence.

*Trirhithrum queritum*, n.sp.

Four specimens reared from larvae in the fruit of a species of *Strychnos usambarensis*, Gilg. (Nairobi, 1936, N. Krauss) have the base of the wing with a weak anal band and rather strongly developed hyaline streaks and black spots; added to the fact that the cubital band is strongly united to the basal, the species comes closest to couplet 20(15) in my review of the species of *Trirhithrum*.<sup>(7)</sup> The question may be raised as to whether or not it may be *bimaculatum*, v. Röd.,<sup>(8)</sup> but this cannot be stated with any certainty, as, from available data, v. Röder's species cannot be recognised till the type has been re-examined. I would thus even qualify my previous statement<sup>(7)</sup> in regard to the correctness of Enderlein's determination as *bimaculatum* of a specimen from Spanish Guinea. The recorded presence of only two scutellar bristles, already queried by Bezzi, is problematical; in all probability two have been abraded in the type. The scutellum is stated to be shining black, and no mention is made of any yellow mark on the disc. Finally two grey marks are recorded on the margin of the third segment; the type is a female.

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(7) Munro. *Bull. Ent. Res.*, XXV, 476, 1934.

(8) v. Röder. *Berl. Ent. Zeit.*, 29, 135, 1885, *Ceratitis*.

(9) Munro, l.c., p. 479.



The chief differences between *queritum* and *viride*, Mro. (l.c.) are the wider frons, in *viride* only a quarter the width of the head, and the presence of a white mark across the base of the scutellum, absent in *viride*.

My tables (l.c.) may therefore be amended as follows: to couplet 13(55) add "or a white or yellow curved bar across the base," and to 20(15) "or rarely absent." Then:—

- 22(23) Thorax entirely black . . . . *bimaculatum*, v. Röd.
- 23(22) A white notopleural stripe of greater or less extent from humerus to wing-base.
- a(b) Frons narrow, a quarter the width of the head, scutellum black. . . . . *viride*, Mro.
- b(a) Frons one-third width of head, scutellum with white bar across base. . . . . *queritum*, n.sp.

Holotype male, alotype female and two female paratypes.

Length: male 4.0 mm., female 4.5 mm., of wing in both 4.0 mm. *Head* normal, proportions of length, height and width, 3, 4.5, and 5.5; *occiput* light yellow, brownish above, moderate below; *frons* slightly more than one-third width of head, flat, yellow, black ocellar dot, slight black pubescence, bristles black, two superior, two inferior orbitals, ocellars moderate; *lunule* short, a brown bar across it from side to side; *antennae* brown, a little shorter than face, arista short plumose; *face* flat, whitish, cheeks narrow, genae brown with black bristle and setulae; proboscis and palpi light brownish. *Thorax*: dorsum shining black, on disc with slight dust on which pubescence is white, pubescence black on sides and in front, also on undusted median stripe and pair of round dorso-central spots on suture, a pair of small, round prescutellar white spots on dorso-central line. *Humeri* yellow with large black spot. *Pleura* and *sterna* brownish-black, upper half of mesopleura lighter brown, margined with a yellow stripe above and below. A single yellow hypopleural spot with an irregular brown bar across it. *Scutellum* shining black with black pubescence, base with sides yellow and a yellow, forwardly curved stripe across top. Post-scutellum black, upper part shining, lower dusted. *Halteres* brownish. *Legs* simple, coxae yellowish, femora and inner four-fifths of middle tibiae black, otherwise yellow. *Wing* normal, moderate anal band reaching to middle of alula, separated from basal by hyaline streaks and brown spots, stigma quite black, wide marginal and cubital bands broadly united to basal, no medial; upper cross-vein before middle of discal cell, end of fourth vein straight. *Abdomen* brownish black, hind edge of second broadly and whole of fourth segment except narrow anterior margin thickly silvery dusted, and in

female middle of fifth lightly dusted. Pubescence black, some white on middle of fourth segment in female. Male genitalia black. Base of ovipositor short, about length of segments four and five together; black with black pubescence.

*Schistopterum moebiusi*, Beck.

Becker, *Mitt. Zool. Mus. Berlin*, II, 137, 1908.

Efflatoun, *Mém. Soc. R. Ent. d'Egypte*, 2, 72, Pl. I, ff. 2 and 10, Pl. III, f. 5, 1924.

Specimens reared from a composite plant at Naivasha—March, 1937, H. J. A. Turner—are rather larger than those I have seen from Egypt and from South West Africa, but are otherwise similar. They are also blacker, but this is probably as they are still fresh. A comparison with the following new species is given below.

*Schistopterum longulum*, n.sp.

This new species is represented by a few specimens reared from flowers of the composite plant (not yet determined) at Naivasha, Kenya, in March, 1937, by H. J. A. Turner—holotype male, allotype female, two male and three female paratypes. It is very like *S. moebiusi*, but the two may be distinguished by the characters in the table that follows. To some extent the new species agrees closely with the description given by Efflatoun (l.c.) of *S. moebiusi*, so that the list of contrasted characters and the additional notes will be sufficient here.

	<i>moebiusi</i>	<i>longulum</i> .
	Smaller: wing-length 1.75 mm. (Kenya specimens, 2.1 mm.)	Larger: wing-length 2.5 mm.
Shining black ocellar triangle.	Shorter and broader; about half length of frons.	More elongate; about two-thirds length of frons.
Palpi.	Narrower, outer third black.	Broader, outer half black.
Third antennal joint.	Distinctly short; about $2\frac{1}{2}$ times long as wide, and $1\frac{1}{2}$ to twice length of second joint; partly yellow.	Distinctly long, about four times long as wide and three times length of second. Almost quite black.
Dorsum of thorax.	With scattered, coarse, white pubescence ("appressed hairs"—Efflatoun).	With less, but fine, white pubescence.
Dorsum of abdomen, female.	No row of white hairs along hind edge of fourth segment.	Such a row present—see further note.
Base of ovipositor.	About half length of pre-abdomen.	About five-sixths length of pre-abdomen.

The outer half of the third antennal joint is only about half the width of the inner, but the apex is not sharply pointed. The black of the body coloration tends to be more ferruginous, especially on the legs, in teneral specimens. The wing-venation and pattern is closely similar to that in *moebiusi*. In the latter it may be noted that the bright yellow spot is circular and the black bar on its outer and lower sides—forming the letter J—has the tail curved round, whereas in *longulum* they are opaque, shining, black, but in more teneral specimens they appear pale and greyish or semi-transparent; in teneral specimens of *moebiusi* they are reddish. On the dorsum of the abdomen of both species there is a little, deciduous, white pubescence, while in the female of *longulum* is formed a more permanent row on the hind margin of the fourth segment.









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